Bio-technology for agriculture

3. DR. K. MALAISAMY: Will the Minister of AGRICULTURE be pleased to state:

(a) whether India will be a leading country in 2020 in producing GM rice, wheat, vegetables by using bio-technology instead of conventional practices;

(b) the details of the move proposed towards this end; and

(c) what could be the adverse effect of soil by resorting to bio-technology and in using the products through bio-technology means?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) and (b) India considers biotechnology as a powerful tool in breaking breeding barriers. Accordingly, a special project on 'Transgenics in Crops' covering 14 crops, including rice and vegetables, has been undertaken. India continuous to strive for harnessing the benefits of biotechnology in conjunction with conventional tools, specially for managing various biotic and abiotic stresses and quality improvement.

(c) GM crops are released for commercial cultivation only after assessing the risk including that on soil, and after being satisfied about their safety in all respects.

Plantation of Jatropha and Karanja in Rajasthan for production of bio-diesel

4. DR. GYAN PRAKASH PILANIA: Will the Minister of AGRICULTURE be pleased to state:

(a) the details of the programme for plantation of Jatropha curcas and Karanja for bio-diesel production in Rajasthan, initiated by National Oilseed and Vegetable Oils Development Board and amount allocated therefor;

(b) the special incentives provided to Rajasthan by the National Mission on bio-diesel;

(c) whether proper planning has been done for assured marketing of their produce at remunerative viable price;

(d) the land area presently covered under Jatropha/Karanja cultivation and potential expansion thereof during the next three years in Rajasthan; and

(e) the targets achieved, up-to-date?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) Details are given in the Statement-I (*See* below).

(b) The proposed National Mission on Bio-diesel is envisaged to be under the Department of Land Resources of the Ministry of Rural Development but is yet to become functional.

(c) The State Government of Rajasthan has fixed a Minimum Support Price of Rs.7/- per kg. for Jatropha seed. It has declared RAJFED as the nodal agency for purchase of Jatropha seeds for the coming three years.

(d) Area presently covered under Jatropha is 128749 hectares. Estimated potential for expansion for the next five years is 40495 hectares.

(e) Progress under the programmes undertaken by the National Oilseeds and Vegetable Oils Development (NOVOD) Board is as in the Statement-II.

Statement-I

Details of the programme for plantation of Jatropha curcas and Karanja for bio-diesel production in Rajasthan

A programme for raising nursery and plantation of Jatropha (1.5 lakh Nos.) was sanctioned to Tata Energy Research Institute (TERI) for implementation in Jodhpur district of Rajasthan during 2003-04.

2. A sum of Rs. 12.00 lakh and a sum of Rs.30.00 lakh were sanctioned to State Farm Corporation of India (SFCI) for raising of nursery and its plantation at Jetsar Farm, Rajasthan during 2002-03 and 2003-04 respectively.

3. The programme for raising of nursery and plantation of Jatropha (50.00 Nos.) with an outlay of Rs.6.00 lakh was sanctioned to Indian Farm Forestry Development Cooperative Ltd.(IFFDC), New Delhi for implementation in Udaipur district of Rajasthan.

4. The State Department of Agriculture, Rajasthan was assigned the programme of raising of 1,25,000 seedlings of Jatropha and its plantation with an outlay of Rs.15.00 lakh in 2003-04.

5. The model plantation of Jatropha through elite planting material over an area of 300 ha was sanctioned to State Department of Agriculture with an outlay of Rs.75.00 lakh during 2004-05. 50% amount of Rs.37.50 lakh was released to the State Department of Agriculture.

6. A programme for model plantation of Jatropha through elite planting material over an area of 200 ha., trainers training (two), farmers training(five) were sanctioned to Maharana Pratap University of Agriculture & Technology with an outlay of Rs.51.81 lakh during 2004-05.

7. Proposal for Karanja plantation was not received from Rajasthan.

8. An amount of Rs. 27.055 lakh has been released under R&D programme on Jatropha and Karanja to the Maharana Partap University of Agriculture & Technology, Udaipur and Rajasthan Agriculture University in Sikar, Rajasthan.

Statement-II

Details of the progress under the programmes undertaken by NOVOD

The Indian Farm Forestry Development Corporation (IFFDC) has raised Jatropha nursery and planted (50,000) numbers in district Udaipur of Rajasthan.

2. The Department of Agriculture, Rajasthan has planted 1.25 lakh seedings in 2004-05.

3. The Department of Agriculture, Rajasthan has raised the elite planting material planted over an area of 50 ha. in Bundi, Chittorgarh and Udaipur districts. The remaining target could not be completed. An amount of Rs. 31.62 lakh has been refunded by the State Department of Agriculture, Rajasthan.

4. The MPUA&T, Udaipur has undertaken Jatropha plantation over an area of 100 ha. at University farm. An amount of Rs. 0.90 lakh was refunded by the University.

5. Five farmers training and trainers training have been conducted under transfer of technology.

6. The development of efficient protocol for Tissue Culture in Jatropha is under progress in MPUA&T, Udaipur.

7. It has been concluded by Rajasthan Agricultural University that Jatropha cannot survive under frost condition *i.e.* below-3 C.

8. Under R&D programme, about 110 Candidate Plus Trees (CPTs) of Jatropha have been identified and cryo-preserved in National Gene bank at NBPGR, New Delhi. The Progeny, Zonal, National and Inter-cropping trials are being conducted for evaluation of genotypes economic feasibility.

9. Against a target of 2,50,000 plants in an area of 100 hectares, a plantation of 1,25,000 plants on 53 hectares has been achieved by SFCI, incurring an expenditure of Rs. 14 lakh in 2008-09.

Production of vegetables and fruits

5. DR. GYAN PRAKASH PILANIA: Will the Minister of AGRICULTURE be pleased to state:

(a) whether India produces nearly 11.90 per cent and 10.90 per cent of world production of vegetables and fruits, respectively, while its share in the global market in vegetables and fruits stand at 1.70 per cent and 0.50 per cent, respectively;

(b) if so, reasons for such poor performance, remedial steps taken and outcome thereof;

(c) how much of fruits/vegetables go waste, due to lack of proper storage etc.;

(d) whether the Indian farmers receive less than a fifth of the high price that the consumer pays and the lion's share is usurped by middlemen; and

(e) if so, how pathetic is plight of farmer?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) and (b) India produces 13 per cent and 12 per cent of world production of vegetables and fruits respectively and its share in the global market is about 1.38 per cent in respect of vegetables & fruits. India is the 2nd largest producer of vegetables and fruits and this Ministry aims at doubling the production of fruits and vegetables by 2011-12. For this several schemes have been implemented since 2005-06. There is an increase of 15 per cent in vegetable production and 8 percent in fruit production by the end of 2007-08.